STATE OF MARYLAND

DHMH

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December 16, 2011

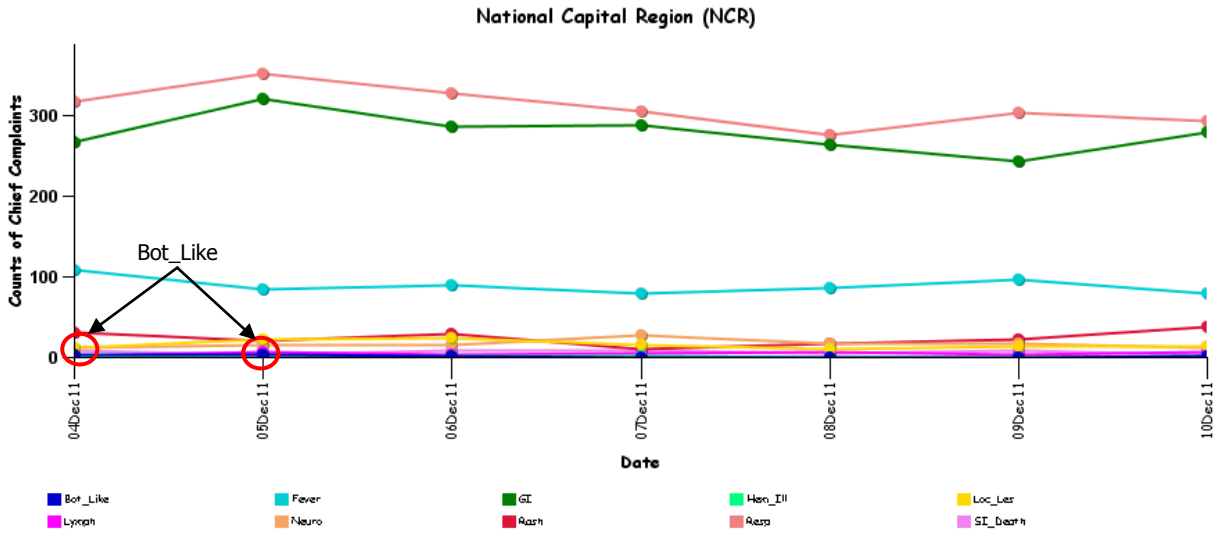
Public Health & Emergency Preparedness Bulletin: # 2011:49
Reporting for the week ending 12/10/11 (MMWR Week #49)

CURRENT HOMELAND SECURITY THREAT LEVELS

National: **No Active Alerts**
Maryland: **Level One (MEMA status)**

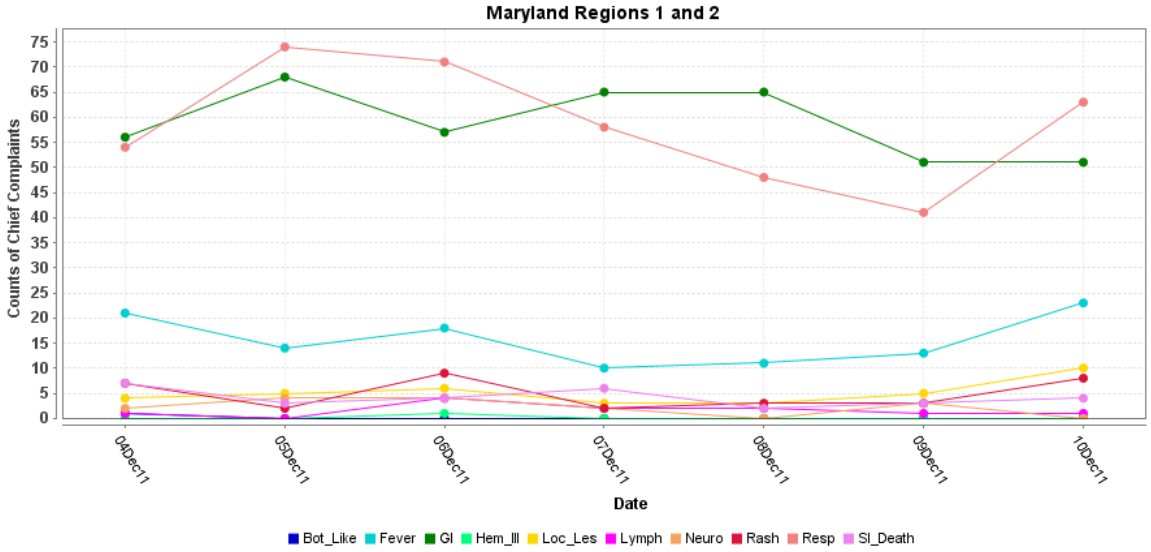
SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.

Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

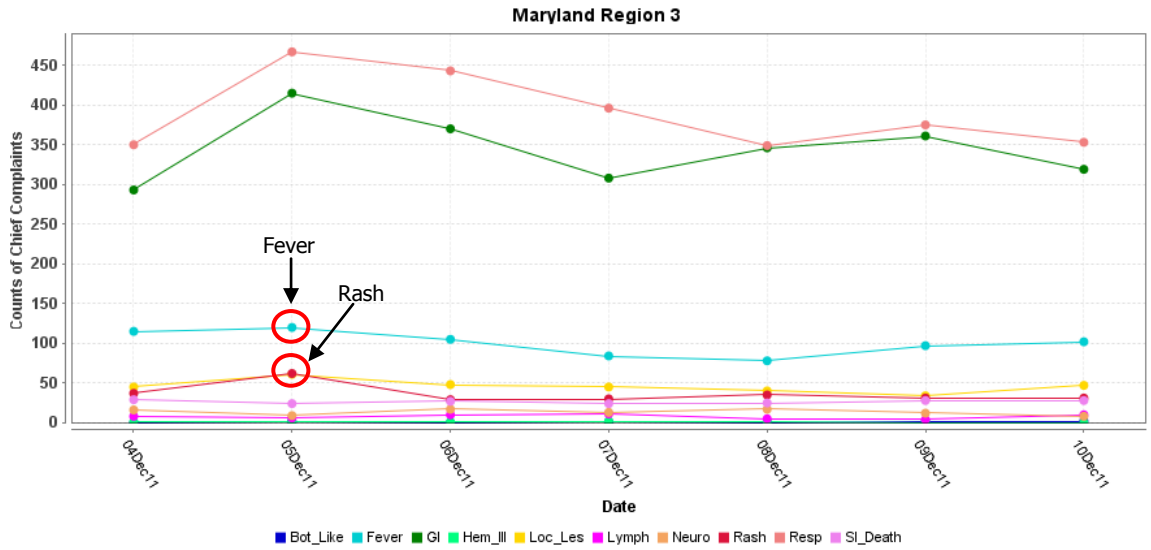


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

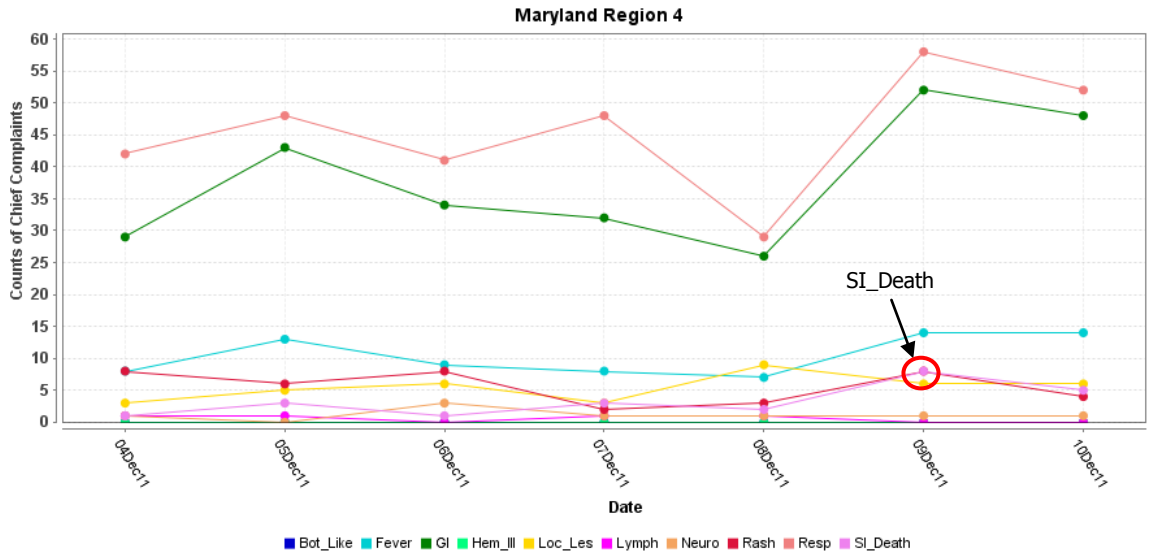
MARYLAND ESSENCE:



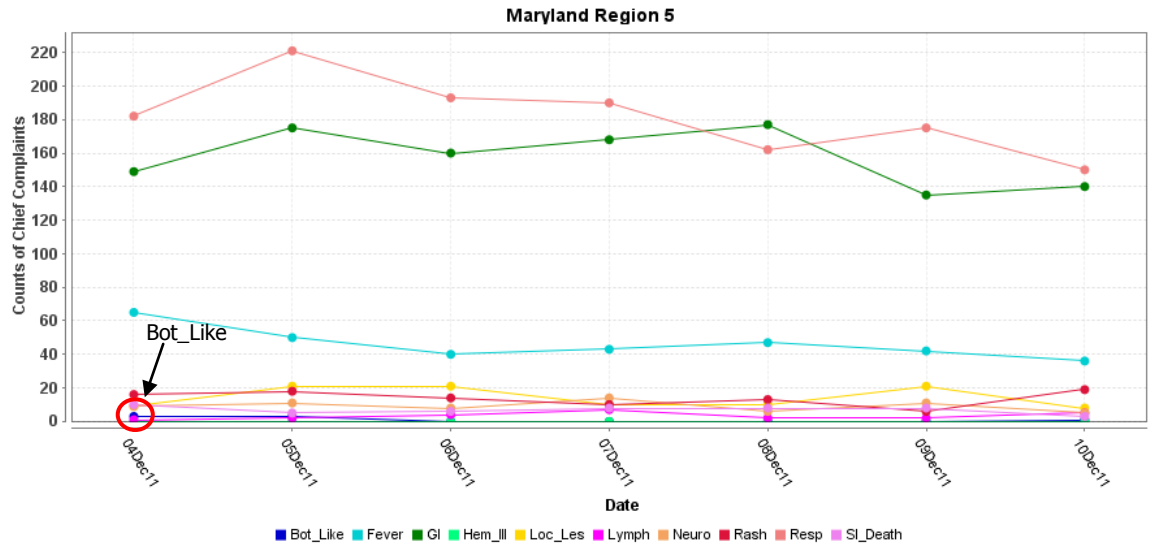
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



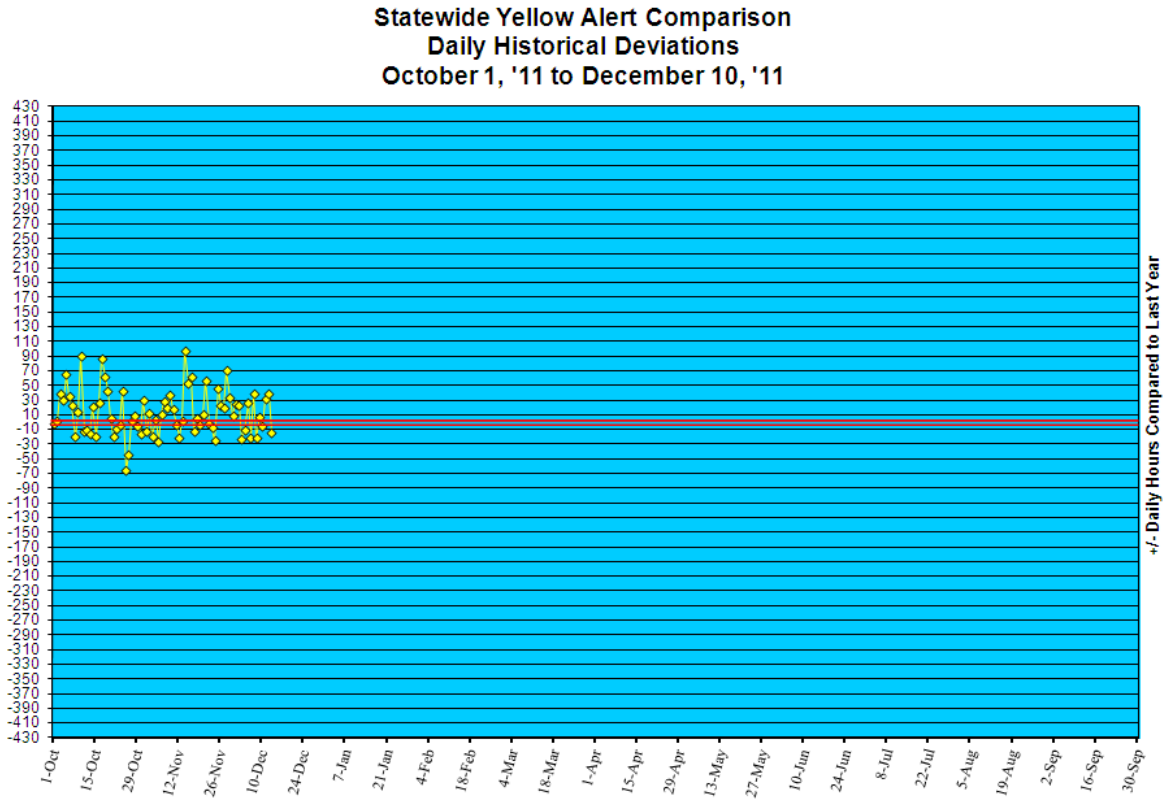
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/11.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in October 2011 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (December 4 – December 10, 2011):	18	0
Prior week (November 27 – December 3, 2011):	8	0
Week#49, 2010 (December 5 – December 11, 2010):	6	0

1 outbreak was reported to DHMH during MMWR week 49 (December 4 – December 10, 2011)

1 Respiratory illness outbreak
1 outbreak of PNEUMONIA in a Nursing Home

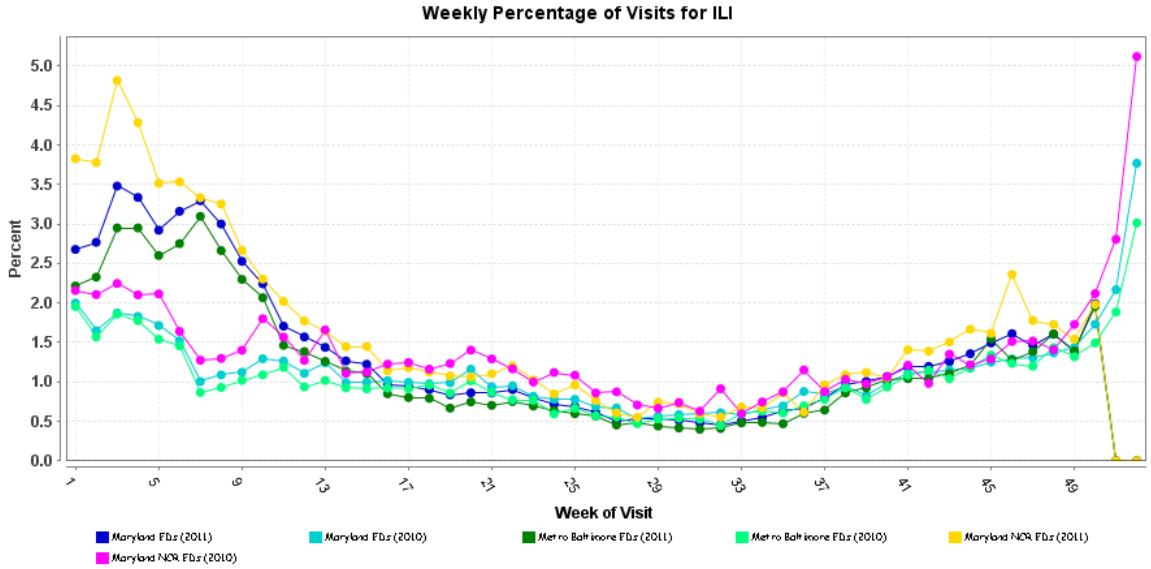
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting occurs October through May. Seasonal influenza activity for Week 48 was: No activity, Minimal Intensity.

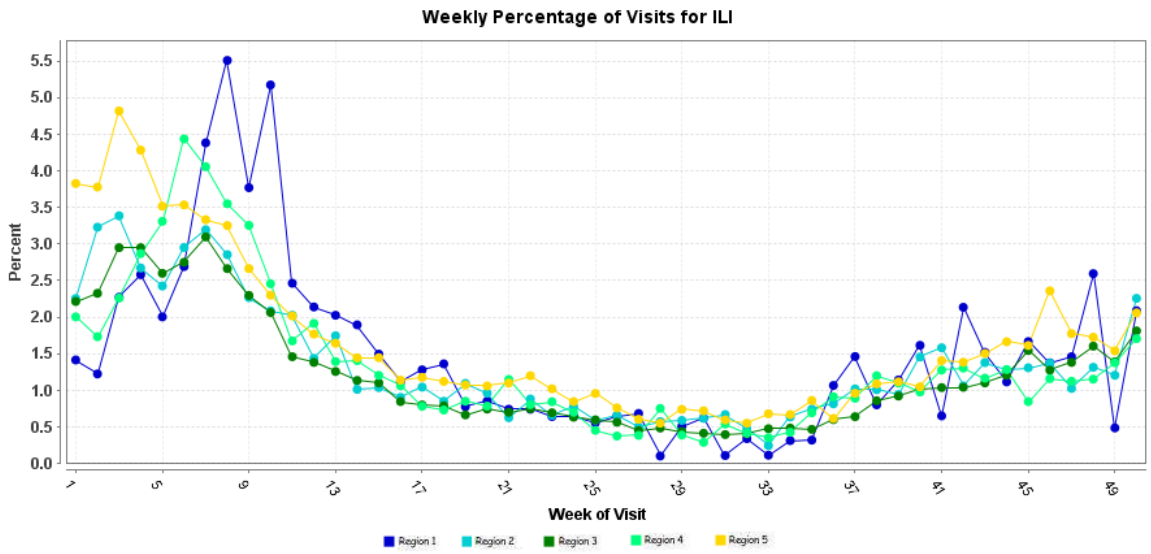
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



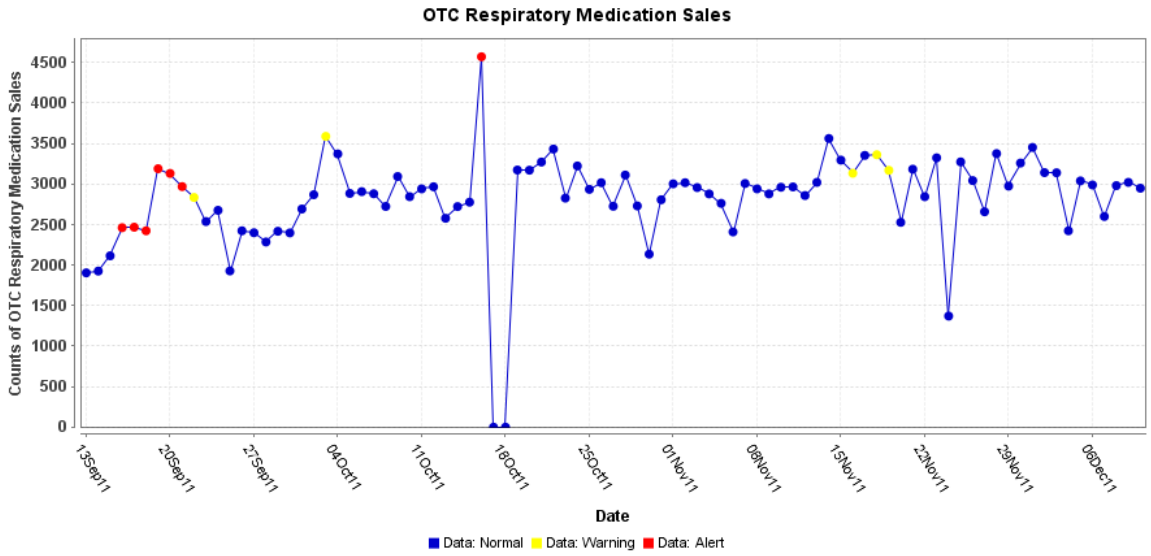
* Includes 2010 and 2011 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2011 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

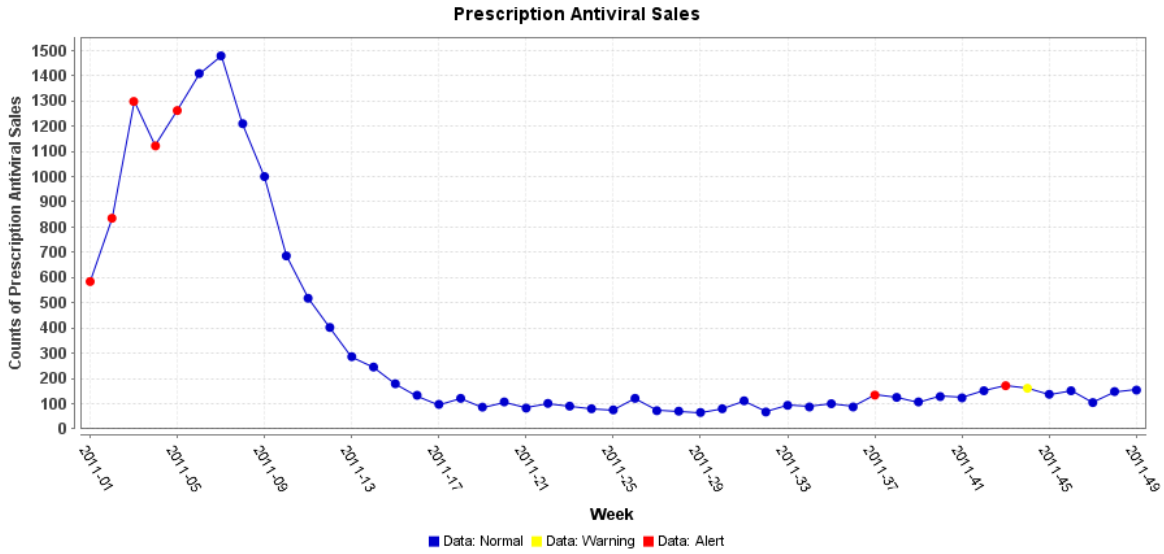
OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PRESCRIPTION ANTIVIRAL SALES:

Graph shows the weekly number of prescription antiviral sales in Maryland.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is 3. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

In **Phase 3**, an animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks. Limited human-to-human transmission may occur under some circumstances, for example, when there is close contact between an infected person and an unprotected caregiver. However, limited transmission under such restricted circumstances does not indicate that the virus has gained the level of transmissibility among humans necessary to cause a pandemic.

As of November 29, 2011, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 571, of which 335 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

NATIONAL DISEASE REPORTS

CAMPYLOBACTERIOSIS (WYOMING): 9 December 2011, On 29 Jun 2011, the Wyoming Department of Health was notified of 2 laboratory-confirmed cases of *Campylobacter jejuni* enteritis among persons working at a local sheep ranch. During June 2011, 2 men had reported onset of symptoms compatible with campylobacteriosis. Both patients had diarrhea, and one also had abdominal cramps, fever, nausea, and vomiting. One patient was hospitalized for 1 day. Both patients recovered without sequelae. During that month, both patients had participated in a multiday event to castrate and dock tails of 1600 lambs. Both men reported having used their teeth to castrate some of the lambs. Among the 12 persons who participated in the event, the patients are the only 2 known to have used their teeth to castrate lambs. During the multiday event, a few lambs reportedly had a mild diarrheal illness. Neither patient with laboratory-confirmed illness reported consumption of poultry or unpasteurized dairy products, which are common sources of exposure to *C. jejuni*. The patients resided in separate houses and did not share food or water; none of their contacts became ill. Both patients provided stool specimens for laboratory testing; *C. jejuni* was isolated from each. The pulsed-field gel electrophoresis (PFGE) patterns of the isolates were indistinguishable when restricted separately by 2 enzymes, SmaI and KpnI. This PFGE pattern had never been reported among 667 specimens from which *C. jejuni* was isolated in Wyoming and is rare in CDC's PulseNet database, with a frequency of 0.09 per cent (8 of 8817). The low frequency of this PFGE pattern suggests that both patients were infected from a common source. Animals at the ranch included sheep, cattle, horses, cats, and dogs; none were ill during the site visit on 19 Oct 2011 when investigators obtained fecal samples from 5 lambs. *C. jejuni* was isolated from 2 lambs; one isolate had a PFGE pattern indistinguishable from the human isolates. *C. jejuni* is transmitted via the fecal-oral route; this is the first reported association of *C. jejuni* infection with exposure during castration of lambs. The PFGE pattern identified in these cases had not been associated with animal exposure. Ranch owners and employees were advised to use standardized, age-specific techniques for lamb castration (for example, Burdizzo, rubber rings, or surgery) and to wash their hands thoroughly after contact

with animals. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

BACILLUS CEREUS (KENTUCKY): 9 December 2011, After 60 people went home sick, the Bullitt County Health Department [Kentucky, USA] confirms there was a foodborne outbreak at Zappos. The bacteria that caused the sickness is a bacteria called *Bacillus cereus*, according to Dr Swannie Jett, Bullitt County public health director. Health inspectors traced the source to Masterson's Catering. Zappos employees are served a free meal at the workplace. "The outbreak has stopped. The proper controls are in place. Zappos and Masterson's have been very cooperative," Dr Jett said. In this case, the bacteria has been traced to food not served at the proper temperature. "Any issues that did arise from maybe the handling have been resolved. So, there will not be any future instance I can see at this point," Dr Jett said. Health inspectors traced the sickness to food served to workers during an overnight shift from Sunday into Monday [4-5 Dec 2011]. More than 1000 were served the same line of food. Health inspectors say while 60 became ill, and some checked out at area hospitals, this was still an isolated incident. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

E. COLI VTEC (MISSOURI): 7 December 2011, The United States Centers for Disease Control and Prevention (CDC) is collaborating with public health and agriculture officials in Missouri, other states, and the Food and Drug Administration to investigate a multistate outbreak of *Escherichia coli* serotype O157:H7 infections linked to romaine lettuce. Public health investigators are using DNA "fingerprints" of *E. coli* O157:H7 bacteria obtained through diagnostic testing with pulsed-field gel electrophoresis (PFGE) to identify cases of illness that may be part of this outbreak. They are using data from PulseNet, the national subtyping network made up of state and local public health laboratories and federal food regulatory laboratories that performs molecular surveillance of foodborne infections. As of 4 Dec 2011, 60 people infected with the outbreak strain of *E. coli* O157:H7 have been reported from 10 states. The number of ill people identified in each state is as follows: Arizona (1), Arkansas (2), Georgia (1), Illinois (9), Indiana (2), Kansas (3), Kentucky (1), Minnesota (3), Missouri (37), and Nebraska (1). Among those for whom information is available, illnesses began from 10 Oct 2011 to 4 Nov 2011. Patients ranged in age from 1 to 94 years (median 29 years). 63 per cent were female. Among the 45 patients with available information, 30 (67 per cent) were hospitalized, and 2 developed hemolytic uremic syndrome (HUS). No deaths have been reported. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS

BOTULISM (FRANCE): 8 December 2011, In early September 2011, local health authorities were notified by a hospital clinician of an outbreak of 5 suspected cases of botulism (Outbreak 1) among 8 people who attended a family dinner in the Vaucluse department in south east France. The 5, aged in their mid-50s to mid-80s, presented with classic symptoms of botulism (gastrointestinal symptoms followed by descending paralysis) 24 to 36 hours after the meal and were hospitalized the same or the following day after symptom onset. All 5 rapidly developed quadriplegia and required intubation and mechanical ventilation. A trivalent antitoxin was administered to all 5. As of the end of November (latest information available), all were still in hospital. A further suspected case, who had attended the same family dinner, was initially asymptomatic, but went on to develop mild symptoms of botulism (double vision, ptosis, and difficulty in swallowing), 7 days after the family meal. This person was hospitalized the day of symptom onset. The patient did not develop paralysis of the limbs or respiratory muscles and was discharged from hospital 3 days after admission. A 2nd outbreak of 3 suspected cases (Outbreak 2) was reported 2 days following notification of Outbreak 1, among 6 people who attended another family dinner, in the Somme department in the north of France. The 3 suspected cases, all aged in their 20s, presented with classic symptoms of botulism 1 day after the dinner and were hospitalized that day. All 3 rapidly developed quadriplegia and required intubation and mechanical ventilation. A trivalent antitoxin was administered to all 3. The duration of hospitalization ranged from 34 to 58 days. 2 asymptomatic people who also attended the dinner were hospitalized for observation and were discharged after 48 hours. (Botulism is listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

JAPANESE ENCEPHALITIS (INDIA) 8 December 2011, The National Commission for Protection of Child Rights (NCPCR) has received a report from the government of Uttar Pradesh regarding deaths of children in the state, the Minister of Women & Child Development Smt. Krishna Tirath revealed in Rajya Sabha [Council of States] today [8 Dec 2011] in written reply to a question. As per the report, 462 children died from acute encephalitis syndrome (AES) and 27 children died from Japanese encephalitis (JE) [virus infection] in 2011 (as on 31 Oct 2011). The state has further reported that a special immunization drive was carried out in 2006 and again in 2010 for Japanese encephalitis (JE) in Gorakhpur district. Thereafter a regular immunization programme has covered 32 421 children till September 2011. Smt. Krishna Tirath also said that, as per the report, the reason for AES in more than 50 per cent of the cases is not known [27 0f 462 total is just 6 per cent for JE virus infection and 94 per cent undiagnosed cases]. Investigation for the reasons is continuing in the Gorakhpur Unit of the National Institute of Virology, Pune. Once the reason is known, effective initiatives can be planned. (Viral Encephalitis is listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

FOODBORNE ILLNESS (GUAM): 6 December 2011, The public health [department] has determined that at least 21 individuals who were treated and released at 2 hospitals suffered from symptoms related to foodborne illness. Division of Environmental Health administrator Tom Nadeau says that, based on interviews, the individuals attended different functions and consumed a variety of items but the common link was the consumption of cream puffs from Celebrity Bakery. Nadeau says samples of the pastry will be sent off-island and it is too premature to confirm if the cream puffs are the source of the foodborne illness. Bakery owner Nelia Pono is anxious for the results as her staff have been making the local favorite for 20 years and the night before Thanksgiving [23 Nov 2011], her staff prepared 1500 cream puffs and sold more than 1000. Pono added that her staff took some home and tested them and did not get sick. (Food Safety Threats are listed in Category B on the CDC List of Critical Biological Agents) *Non-suspect case

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail me. If you have information that is pertinent to this notification process, please send it to me to be included in the routine report.

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